DATE: JUNE 29, 2000

CLIENT: 09260250
LIBRARY: NEWS
FILE: ALLNWS

YOUR SEARCH REQUEST IS:
(DRILLPIPE OR DRILL PIPE) W/5 (5 OR 6)

YOUR FOCUS SEARCH REQUEST IS:
JOINT W/5 (SEVEN OR 7)

NUMBER OF STORIES FOUND WITH YOUR FOCUS REQUEST:
16

February, 1995

SECTION: Vol. 275 ; No. 2 ; Pg. 75; ISSN: 1072-7825

LENGTH: 6702 words

HEADLINE: Died and gone to Vegas; short story

BYLINE: Gautreaux, Tim

BODY:

... sky, and breakin' apart at the joints. Well, my frien', he had a magazine spread out across his lap when a **six-inch** drill pipe hit the roof like a spear and went through-and-through the main diesel engine. About a half second ...

Newsweek

October 2, 1978, UNITED STATES EDITION

SECTION: BUSINESS; Pg. 103

LENGTH: 221 words

HEADLINE: AN OIL-FIELD INFERNO

BODY:

... Louisana's bayou country last week fire - apparently touched off by a spark - suddenly raced up **the 6-inch drill** pipe. Within seconds, a hugh ball of flame engulfed the drilling rig, killin gone workman and badly burning two ...

October, 1998

SECTION: No. 10, Vol. 219; Pg. 53; ISSN: 0043-8790

IAC-ACC-NO: 21265242

LENGTH: 2775 words

HEADLINE: Glycol-enhanced mud is used to drill an extended reach well off California.

BYLINE: Seaton, Simon; Patterson, Wayne; Martin, Jim; Hertfelder, Gary

BODY:

... 7,149 ft MD and held to 10,700 ft MD. The angle would then be dropped to 42 [degrees] by 13,233 ff MD, where 7 5/8-in. flush joint casing would be run and cemented. A turn of about 30 [degrees] was also planned.

A 6 1/2-in. hole would then be ...

... 40 [degrees], at which point a 5 1/2-in. liner would be run and cemented. The SRWD was planned to ensure that 7 5/8-in. flush joint casing could be run without the need for a separate hole opening run. The final well profile differed slightly from ...

... up and used to finish the interval, followed by a run with a 9 7/8-in. underreamer. Finally, **7-in. flush joint casing** was run successfully to bottom and cemented. This was considered the most challenging aspect of this project and a major achievement. The mud was extremely ...

June, 1991

SECTION: Vol. 212 ; No. 6 ; Pg. 39; ISSN: 0043-8790

LENGTH: 2092 words

HEADLINE: Precise guidance puts record-depth relief well on target.

BYLINE: Uzcategui, Humberto ; Hewitt, Darrell ; Golindano, Reinaldo

BODY:

... gram charges, a mechanical firing head, a 5-ft-lg perforated nipple, 4-ft, 2 7/8-in. tubing pup joint and a gyro orienting sub with an adjustable muleshoe key installed inside at the top.

The gun was manufactured with a ...

standard API connection. The double-shoulder configuration permits streamlined configurations with reduced ODs and larger IDs, while still maintaining the desired torsional strength.

XT can be refaced, and a portable refacing tool is also available to eliminate shipping costs to a machine shop for repair work and for use in remote areas where machine shops are not readily accessible.

DRILL PIPE HANDLING

Only minor modifications are needed with regard to pipe handling equipment to use the 5 7/8-in. XR drill pipe. These considerations are discussed below.

Elevators--The XT57 connection has a standard 18 [degrees] elevator shoulder. The elevator bore must clear the 6-in. external upset on the pipe. A 6 1/8-in. bore provides adequate clearance around the upset. As discussed above, because of the limited elevator-shoulder contact area, the elevator capacity rating will be somewhat less than 500 t.

Discussions with elevator manufacturers indicate that the elevator rating should be in the range of 430 to 450 t. Care should be taken to inspect the elevators for wear on a frequent basis. Due to the reduced contact area, bearing stresses may be higher than typical, compared to 5 1/2-in. drill pipe, and elevator wear will be higher than normal. Extra elevator inserts should be available to allow regular change out, when required.

Blow-out preventers--Standard annular BOPs and shear rams are compatible with the 5 7/8-in. XR. Either variable-bore rams or inserts machined to fit the 5 7/8-in. pipe can be used for pipe ram BOPs. Special, fixed-size pipe rams have already been successfully designed and manufactured for the 5 7/8-in. XR.

Top drive bell stabbing guide--This stabbing guide, located below the top drive, centers the box connection at the top of a drill pipe stand under the pin on the saver sub. Due to the reduced clearance between pin nose and box face on the XT57 connection, the centralizing device in the bell guide must have an effective ID of 7.5 in., or less, to ensure that the pin does not damage the box face when stabbing the saver sub into the top of a drill pipe stand. The centralizing device is generally a sleeve or a set of flippers. On one manufacturer's top drive, the "standard" flippers used with 5-in. API drill pipe provide the correct centralization for the XT57 connection.

Slips--A 7-in. slip body dressed with inserts to grip the 5 7/8-in. pipe body should be used.

Finger board--The finger board spacing should be evaluated for each rig that will be used to drill with the 5 7/8-in. XR drill pipe. On the first 5 7/8-in. drill pipe job, no modifications were required.

Stabbing guide--As discussed above, a stabbing guide should be used on the rig floor anytime an XT57 pin is stabbed in a box. This will ensure proper alignment and reduce stabbing damage.

Mud bucket--A standard mud bucket can be used with the 5 7/8-in. XR drill pipe and XT57 connection. The mud-bucket bore must be sized to seal around the 5 7/8-in. pipe body.

Iron Roughneck--Standard pipe handling equipment can be readily adapted to fit the 5 7/8-in. drill pipe.

Accessories--The top drive saver sub, crossover subs and other accessories made-up into the drillstring must be threaded with the XT57 connection. During well planning, compatibility of drill pipe safety valves, darts, balls, etc. should be evaluated.

APPLICATIONS

The first string of 5 7/8-in. XR drill pipe went to work for a major operator on a Gulf of Mexico project in July 1999. Two additional strings started jobs in October 1999. The second and third 5 7/8-in. drillstrings are being used on deepwater Gulf of Mexico projects operated by major oil companies.

ARCO China Inc. purchased a string of 5 7/8-in. XR for its Yacheng ERD project in the South China Sea. Phase 2 of this project is slated to begin drilling in the first quarter of 2000. A typical casing program for Yacheng field is depicted in Fig. 6. The project will include two platforms, with ERD wells planned from both platforms. Wells are planned with horizontal departures up to 20,000 ft and measured depths to 25,500 ft--about 13,500-ft TVD.

[Figure 6 ILLUSTRATION OMITTED]

The improved hydraulic performance of the 5 7/8-in. drill pipe, relative to 5 1/2-in., will be extremely beneficial in drilling the long, 12 1/4-in. hole sections to measured depths in excess of 21,000 ft. Although, the 5 7/8 in. is not required to drill the 17 1/2-in. hole section, it will also improve drilling efficiency in this interval.

About 125,000 ft of 5 7/8-in. XR drill pipe has been manufactured. An additional 55,000 ft of 5 7/8-in. XR is being manufactured, or is on order. By early 2000, up to six strings of 5 7/8-in. XR drill pipe will be available for rental in regions throughout the world.

LITERATURE CITED

[1] Barker, J.W., "Equivalent circulation density management in ultra-deep, deepwater GOM wells," Deepwater Technology, August 1999, pp. 29-31.

[2] Payne, M.L., and E.I. Bailey, "Purpose-built drill pipe for extended reach drilling," paper IADC/SPE 39319, presented at the 1998 IADC/SPE Drilling Conference, Dallas, March 3-6, 1998.

Michael Jellison, Product manager, Drill Stem Products Division, Grant Prideco, graduated from Texas A&M University in 1980, with a BS in mech-anical engineering. He joined Oil Technology Services, Inc. in 1982, where he specialized in design of deep, high-pressure, complex wells, in addition to work on two tubular design programs. In his present position, he directs product development, manages drill stem business efforts and provides technical assistance to customers. He initiated the effort to develop the 5 7/8-in. drill pipe for ERD and deep wells. Mr. Jellison has written several technical papers on tubulars and premium connections. And he has conducted design schools and seminars on these subjects.

Dr. M. L. (Mike) Payne is an advisor with ARCO Exploration and Production Technology in Piano, Texas. He holds a BSME degree from Rice University (1982), an MS degree in petroleum engineering from the University of Houston (1984) and a PhD in mechanical engineering from Rice University (1992). Previously a consultant, he has 18 year's industry experience and has been with ARCO for 15 years in positions of increasing responsibility in drilling operations/research. He was seconded to BP to work on the Wytch Farm ERD project, and he is continuing work on ERD, HPHT drilling and high-performance well construction. Dr. Payne has published numerous technical papers for SPE, IADC, ASME and several trade journals. He is a registered professional engineer, a member of the SPE Editorial Review Committee, Vice-Chairman of API Subcommittee 5 and Covenor of ISO/TC67/ SC5/WG2. He served as an SPE Distinguished Lecturer during the 1995-96 season on the subject of ERD.

LANGUAGE: ENGLISH

IAC-CREATE-DATE: April 7, 2000

LOAD-DATE: April 08, 2000

DATE: JUNE 29, 2000

CLIENT: 09260250
LIBRARY: NEWS
FILE: ALLNWS

YOUR SEARCH REQUEST IS:
ATLEAST5(DRILLPIPE OR DRILL PIPE) AND ATLEAST2(JOINT)

NUMBER OF STORIES FOUND WITH YOUR REQUEST THROUGH:
LEVEL 1... 145

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     (FILE 'HOME' ENTERED AT 10:22:40 ON 29 JUN 2000)

     FILE 'TULSA' ENTERED AT 10:23:26 ON 29 JUN 2000
L1          7629 S DRILL(2A)PIPE OR DRILLPIPE
L2         16015 S JOINT?
L3           765 S OD OR O()D OR OUTER(2A)DIAMETER
L4           626 S ID OR I()D OR INNER(2A)DIAMETER
L5            51 S L1 AND L2 AND (L3 OR L4)
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L5 ANSWER 2 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 2000:11542 TULSA
DOCUMENT NUMBER: 728146
TITLE: RESEARCH AND DEVELOPMENT OF ADVANCED COILED TUBING
AUTHOR: URAYAMA, T; YONEZAWA, T; HAMADA, M; SUGINO, M; TAKABE, H; IKEDA, A
CORPORATE SOURCE: JAPAN NATIONAL OIL CORP; SUMITOMO METAL INDS LTD; SUMITOMO METAL TECHNOL INC
SOURCE: IADC/SPE DRILLING CONF (NEW ORLEANS, 2/23-25/2000) PROC 2000 (IADC/SPE-59164; AVAILABLE ON CD-ROM; 13 PP; 2 REFS). ; Conference; Conference Article
LANGUAGE: English
AB **Joint** Industry Project (JIP) DEA107 is described, in which BP, Amoco, ENI S.p.A. Divisione Agip, Scottish Enterprise Operations and Japan National Oil Corp. participated. The objectives of this project were to investigate and report low cycle fatigue phenomena of coiled tubing, to present a rational fatigue life prediction model for coiled tubing and to develop an advanced coiled tubing which could be applied to coiled tubing drilling of deep wells. In this paper, the effect of various factors on cyclic bending performance of parent coiled tubing materials is predicted first in relation to ballooning and low cycle fatigue phenomena. Corrosion and low cycle fatigue phenomena of coiled tubing after long-term exposure in a mud environment is discussed. Fatigue performance and improvement of circumferential joining techniques are discussed. A trial section of advanced coiled tubing of 2-3/8-in. **outer diameter** and 0.190-in. wall thickness with total length of 3,000 ft was manufactured by means of joining short lengths of seamless tubing using the amorphous diffusion bonding technique.

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L5 ANSWER 2 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 2000:11542 TULSA
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CORPORATE SOURCE: JAPAN NATIONAL OIL CORP; SUMITOMO METAL INDS LTD; SUMITOMO METAL TECHNOL INC
SOURCE: IADC/SPE DRILLING CONF (NEW ORLEANS, 2/23-25/2000) PROC 2000 (IADC/SPE-59164; AVAILABLE ON CD-ROM; 13 PP; 2 REFS). ; Conference; Conference Article
LANGUAGE: English
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drilling of deep wells. In this paper, the effect of various factors on cyclic bending performance of parent coiled tubing materials is predicted first in relation to ballooning and low cycle fatigue phenomena. Corrosion and low cycle fatigue phenomena of coiled tubing after long-term exposure in a mud environment is discussed. Fatigue performance and improvement of circumferential joining techniques are discussed. A trial section of advanced coiled tubing of 2-3/8-in. **outer diameter** and 0.190-in. wall thickness with total length of 3,000 ft was manufactured by means of joining short lengths of seamless tubing using the amorphous diffusion bonding technique.

L5 ANSWER 3 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 2000:11072 TULSA
DOCUMENT NUMBER: 727676
TITLE: CASE HISTORY OF IMPLEMENTING NEW AND EXISTING TECHNOLOGY TO INCREASE THE LIFE OF DRILL STRINGS IN THE MIDDLE EAST
AUTHOR: SCHWENKER, R; KYAW, H; MURPHY, P; SNAPP, D
CORPORATE SOURCE: KUWAIT SANTA FE CO; NAT DRILL CO ABU DHABI; GRANT PRIDECO
SOURCE: IADC ET AL MIDDLE EAST DRILLING CONF (DUBAI, UAE, 11/3-4/1998) PROC PAP NO 12, 1998 (8 PP). ; Conference; Conference Article
LANGUAGE: English
AB As the technology for drilling wells in the Middle East and throughout the world has become more demanding on the drill string (horizontal and deeper wells, and harsh and corrosive environments), manufacturers have been working to improve the technology of the drill string. This presentation is a case history of how new and existing technology was implemented to combat the drill string failures that were occurring in Abu Dhabi and in Kuwait. New lengths of measurable internal upset for **drill pipe** combined with controlled yield grades have increased the life of the **drill pipe** to 6 to 7 yr from 3 to 4 yr historically. To reduce bottom-hole assembly failures in Kuwait, 6-5/8-in. **OD** Heavyweight **drill pipe** was used. Six years of case history show this technology has achieved the reduction of failures in these 2 cases.

L5 ANSWER 4 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 2000:5400 TULSA
DOCUMENT NUMBER: 722004
TITLE: SCREW **JOINT** FOR OIL WELL PIPING
INVENTOR: NISHI, M; SUZUKI, T
PATENT ASSIGNEE: NKK CORP; MITSUBISHI CORP
PATENT INFO.: WO 9953232 19991021
APPLN. INFO.: WO 19990412
PRIORITY INFO.: JP 1998-100800 19980413
SOURCE: WORLD 99/53,232, P 10/21/1999, F 4/12/1999, PR JAPAN 4/13/1998 (APPL 10/100,800) (F16L-015/04) (26 PP; 5 CLAIMS; IN JAPANESE). ; Patent
LANGUAGE: Japanese
AB A screw **joint** for oil well piping is described. The load flank meets specified requirements such that the inclined surfaces of a trapezoidal screw on both sides are brought into contact simultaneously when the screw **joint** is tightened so that an interference of at least 0.12% of the **outer diameter** and 0.8% or less of the **outer diameter** in hoop stress is provided to a screw part. A clearance formed between the crest and root of the trapezoidal screw is reduced to 0..2 mm or less, and dimensional tolerances

of the screw width and screw crest height meet specified requirements.

L5 ANSWER 5 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 2000:4022 TULSA
DOCUMENT NUMBER: 720626
TITLE: NEW **DRILL PIPE** SIZE IMPROVES ERD (EXTENDED REACH DRILLING) AND DEEPWATER DRILLING
AUTHOR: JELLISON, M J; PAYNE, M
CORPORATE SOURCE: GRANT PRIDECO; ARCO TECHNOL & OPER SERV
SOURCE: WORLD OIL V 221, NO 1, PP 113-114,116,118,120, JAN 2000 (ISSN 00438790; COLOR; 2 REFS). ; Journal
LANGUAGE: English
AB A new product, 5-7/8-in. eXtreme Reach (XR) **drill pipe**, represents enabling technology for ERD, deep-water and other deep well applications. The hydraulic performance of the drill string can be a significant limitation in these applications, resulting in poor hole cleaning, slower penetration rates, diminished control over well trajectory and **drill pipe** sticking. The 5-7/8-in. XR provides a significant improvement in hydraulic efficiency compared to 5.5-in. **drill pipe** and does not suffer from the disadvantages associated with use of 6-5/8-in. **drill pipe**. Realizing the full potential of 5-7/8 in. required development of a high-performance tool **joint** connection. The eXtreme Torque (XT) connection design, optimized for 5-7/8-in. **drill pipe**, provides exceptional torsional strength combined with a streamline configuration. The XT57 tool **joint OD** of 7 in. permits fishing of the connection with an overshot inside 9-5/8-in. casing or 8.5-in. openhole sections. This article discusses the engineering philosophy behind 5-7/8-in. XR **drill pipe**, and design challenges associated with development of the product, and it reviews features and capabilities of the new connection. An upcoming project that will use 5-7/8 in. is also discussed. The project, operated by ARCO China Inc. in the South China Sea, is scheduled to begin in early 2000.

L5 ANSWER 6 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 1999:21383 TULSA
DOCUMENT NUMBER: 710584
TITLE: PIPE END LOAD SUPPORT AND PROTECTOR APPARATUS
INVENTOR: MEUTH, T L
PATENT ASSIGNEE: OFFSHOR CLAMP PROTECT TECH
PATENT INFO.: US 5866218 19990202
APPLN. INFO.: US 1996-702752 19960823
SOURCE: US 5,866,218, C 2/2/1999, F 8/23/1996 (APPL 702,752) (B65D-059/02; B65D-059/06) (6 PP; 19 CLAIMS). ; Patent
LANGUAGE: English
AB Protectors are described for **drill pipe** and riser **joints**, particularly for pipe end load supports. The pipe end load support and protector apparatus is lightweight and has the required strength to withstand the loads to which it is subjected. The apparatus can be used with pipe stands or with pipe stored or transported horizontally. The pipe protector apparatus comprises a circular member having an **outer diameter** approximating the **outer diameter** of the pipe end. The circular member has an end bearing portion made of a closed cell rigid polyurethane form. The polyurethane foam has a density in the range of 40 to 70 lb/cu ft. The pipe end load support and protector apparatus includes attaching means for attaching the device to the pipe end.

L5 ANSWER 7 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 1999:19428 TULSA
DOCUMENT NUMBER: 708629
TITLE: INDUSTRY GROUP STUDIES DUAL-GRADIENT DRILLING

AUTHOR: GADDY, D E
SOURCE: OIL GAS J V 97, NO 33, PP 32-34, 8/16/1999 (ISSN 00301388; COLOR). ; Journal
LANGUAGE: English
AB Development of a dual-gradient, mud-lift drilling system may push operational limits well beyond 10,000 ft of water, resulting in fewer casing strings and greater safety margins between pore pressure and fracture gradients. A **joint**-industry project team comprising 4 operators, 4 drilling contractors, and a manufacturer has spent $14 million since 1996 on conceptual design and critical component development for this technology. The group anticipates spending another $30 million to $35 million before delivering a commercial system in 2002. The dual-gradient system also circulates drilling fluids down the **drill pipe**, out the bit, and up the well annulus. At the point where the drilling fluids reach the sea bed, however, a rotating diverter prevents the returing mud from flowing up the riser, redirecting flow instead through a smaller-**ID** return line. To advance fluid flow up the return line, a pump module mounted on the seabed will pump drilling fluids to the active mud system on the surface. This configuration replaces heavy drilling muds in the drilling riser with seawater while retaining the mud column in the well bore. In addition to readjusting pressure regimes along the well bore, the dual-gradient system may also play an important role in well-control situations.

L5 ANSWER 8 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 1999:17295 TULSA
DOCUMENT NUMBER: 706496
TITLE: ELIMINATING TWIST-OFFS AS A CAUSE OF DRILLSTRING FAILURE
AUTHOR: BARYSHNIKOV, A; DONATI, F; GAZANCHAN, J; SEMIN, V
CORPORATE SOURCE: ENI AGIP; SPKB GEOTEST
SOURCE: WORLD OIL V 220, NO 7, PP 81-82,85-89, JULY 1999 (ISSN 00438790; COLOR; 8 REFS). ; Journal
LANGUAGE: English
AB Severe down-hole conditions, together with **inner** and **outer diameter** limitations, create difficulties in designing reliable drill string equipment, and existing API Recommended Practices (RP) should define clear limitations for down-hole loads to be applied to drill string components. Some reference information within RPs are not understood well, e.g., drill string tension and torsion combined load data. Resistance to torsion has not been studied closely, and some guidelines, such as the Drilling Data Handbook, define only a maximum allowable number of turns that can be applied to 1,000 m (3,280 ft) of new, Grade E **drill pipe** under a given axial tension. It is believed that a twist-off may be due more to the poor steel properties of the **drill pipe** body than to the rotary shouldered connection's torsion resistance. This examination of the twist-off phenomenon discusses ways to avoid drill string failures under combined tensile and torsion loads and make-up torque.

L5 ANSWER 9 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 1999:5939 TULSA
DOCUMENT NUMBER: 695140
TITLE: FLEXIBLE 3.5 IN. **O.D.** MWD (MONITORING-WHILE- DRILLING) SYSTEM ENHANCES SHORT RADIUS, HORIZONTAL DRILLING APPLICATIONS IN SHENGLI OILFIELD, CHINA
AUTHOR: LI, H; WANG, Z; PAGE, S C; KNIGHT, J H
CORPORATE SOURCE: SHENGLI PETROL ADMIN BUR; GEOLINK (UK) LTD
SOURCE: 6TH SPE OIL & GAS INT CONF IN CHINA (BEIJING, 11/2-6/1998) PROC V 1, PP 319-326, 1998 (SPE-48862; 1 REF). ; Conference; Conference Article

LANGUAGE: English

AB A 3.5-in. **OD** MWD system has been developed which is capable of providing directional and gamma ray services in short radius wells at build rates up to 3.3(deg)/m, a build rate that previously had not been available through conventional MWD technology. Specially selected materials, innovative tool **joint** design and an integral MWD transmitter/drilling subassembly are utilized in order to withstand the stresses associated with high build rates while maintaining full functionality in small diameter drill collars. Innovative testing methods were required to qualify the system for short radius applications, resulting in the implementation of significant design improvements. Three case histories in the Shengli oil field are presented.

L5 ANSWER 10 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 1998:3795 TULSA
DOCUMENT NUMBER: 668066
TITLE: WORLD OIL'S 1996 COILED TUBING TABLES
SOURCE: WORLD OIL V 217, NO 3, PP 51,53-54,56,58,60, MARCH 1996 (ISSN 00438790). ; Journal
LANGUAGE: English

AB Demand for coiled tubing continues to grow in almost every aspect of today's E&P market because of its flexibility, versatility and economy. It is being used for a variety of drilling, completion and production operations that previously required conventional **jointed** pipe, workover and snubbing units, or rotary drilling rigs. Traditional specifications and dimensions are now augmented by addition of calculated performance properties for down-hole workover and well servicing applications. Coiled tubing tube body weight in pound/foot is based on specified dimensions. Coiled tubing tube body yield is based on specified outside diameter (**OD**), minimum wall thickness and minimum specified material yield strength. Calculated internal yield pressure is based on minimum wall thickness, minimum specified material yield strength, specified **OD** and the Barlow formula. Effect of axial loading on internal yield pressure is not included.

L5 ANSWER 11 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 97:21387 TULSA
DOCUMENT NUMBER: 661221
TITLE: PINUP SLIMHOLE DRILLSTRINGS FOR VERTICAL HIGH ANGLE AND HORIZONTAL APPLICATIONS
AUTHOR: DUDMAN, R A
CORPORATE SOURCE: PINTEC DRILLING SERV INC
SOURCE: 3RD ANNU PETROL NETWORK EDUC CONF (PNEC) EMERGING TECHNOL & APPL N AMER CONF (CALGARY, CAN, 5/15-16/95) PROC PAP NO 23, 1995 (22 PP). ; Conference; Conference Article
LANGUAGE: English

AB Slimhole drilling operations present a number of difficult obstacles that must be overcome in order to offer economic viability. A Pin Up designed drillstring provides stiffness to control hole deviation, torsional strength to increase operating limits and decrease down-hole failures, improved hydraulics to motor and bit performance, and higher annular velocity for hole cleaning. Pin Up technology allows the use of one-size-larger tubulars and bottom hole assemblies. Larger components are stronger and hydraulically superior. Historically, when oversize components are run conventionally, i.e., box up, a fishing neck (reduced **OD**) is cut over the box connection. This reduction in **OD** permits fishability but severely weakens the connection. By running the drillstring component (**drill pipe**, Hevi-Wate, **drill** collar, stabilizer, reamer and motor) Pin Up and placing the reduced **OD** fishing neck under the pin instead of over the box,

fishability is obtained and larger, stronger connection sizes can be used.

Torsional and tensile yields are increased in comparison to conventional sized components.

L5 ANSWER 12 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 97:20277 TULSA
DOCUMENT NUMBER: 660111
TITLE: **DRILL PIPE**/CASING PROTECTOR ASSEMBLY
INVENTOR: KRUEGER, R E; MOORE, B N
PATENT ASSIGNEE: WESTERN WELL TOOL INC
PATENT INFO.: WO 9713951 19970417
APPLN. INFO.: WO 19961010
PRIORITY INFO.: US 1995-542098 19951012
SOURCE: WORLD 97/13,951, P 4/17/97, F 10/10/96, PR US 10/12/95 (APPL 542,098) (E21B-012/00; E21B-017/10) PCT GAZ V 1997, NO 17, P 8476, 4/17/97 (ISSN 02507757; ABSTRACT ONLY) (AO).
; Patent
LANGUAGE: English
AB A **drill pipe**/casing protector assembly for an underground drilling system comprises a well bore in an underground formation, a fixed tubular casing installed in the well bore, a rotary **drill pipe** extending through the casing and having an **OD** spaced from an **ID** of casing (or well bore) during normal drilling operation, and a protective sleeve mounted around the **drill pipe** and spaced from the **ID** of the casing, and upper and lower thrust bearings affixed to the **drill pipe** above, and below the sleeve to retain the sleeve in a fixed axial position on the **drill pipe**. The sleeve contacts the **ID** of the casing when the **drill pipe** deflects off-center to protect the casing from contact with the **drill pipe** or its tool **joints** during rotation of the **drill pipe**. The sleeve separates from the **OD** of the **drill pipe** upon circulation of a fluid film under pressure between the sleeve and the **drill pipe** to produce a fluid-bearing effect with reduced frictional drag. End slots at the top and the bottom annular end walls of the sleeve provide enhanced fluid-bearing effects in the clearance regions between the sleeve and the adjacent thrust bearings. (Original not available from T.U.)

L5 ANSWER 13 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 97:7972 TULSA
DOCUMENT NUMBER: 647806
TITLE: DUAL BORE RISER
INVENTOR: MORGAN, M G; EDWARDS, J C
PATENT ASSIGNEE: EXPRO NORTH SEA LTD
PATENT INFO.: WO 9628634 19960919
APPLN. INFO.: WO 19960227
PRIORITY INFO.: GB 1995-9505129 19950314
SOURCE: WORLD 96/28,634, P 9/19/96, F 2/27/96, PR GR BRIT 3/14/95 (APPL 9,505,129) (E21B-017/01; E21B-019/22) PCT GAZ V 1996,
NO 42, P 17393, 9/19/96 (ISSN 02507757; ABSTRACT ONLY) (AO). ; Patent
LANGUAGE: English
AB A dual bore riser system is described which comprises a conventional monobore riser for production access and an independent coil tubing disposed in parallel with the monobore riser for providing annular access.

The monobore riser comprises discrete **joints** of tubing, casing or **drill pipe** and the coil tubing riser may be any suitable size but is normally between 2-3/8 in. and 2-7/8 in. **OD**

. The standard monobore riser and coil tubing riser interface to a landing spool adaptor. The coiled tubing is fed from a coiled tubing reel which is conventional, via a sheave and straightening rollers into the well with the tubing riser. The coiled tubing is clamped to the tubing riser by clamps at intervals along its length corresponding to a **joint** every 30 ft. The upper end of the landing spool adaptor receives the tubing and also contains a termination for the coiled tubing which is typically a swage device. The 5-in. x 2-in. landing spool adaptor and landing spool has an 18 in. **OD** to fit into the blowout preventer (BOP) stack, and the landing spool has a smooth outside surface for cooperating with the interior of the annular BOP. (Original not available from T.U.)

L5 ANSWER 14 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 96:20991 TULSA
DOCUMENT NUMBER: 634316
TITLE: SYSTEM AND STABILIZER APPARATUS FOR INHIBITING HELICAL STACK-OUT
INVENTOR: STEVENS, J C; GORDON, J G
PATENT ASSIGNEE: GREAT LAKES DIRECT DRILL
PATENT INFO.: US 5522467 19960604
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SOURCE: US 5,522,467, C 6/4/96, F 5/19/95 (APPL 444,531) (E21B-017/10) (11 PP; 22 CLAIMS). ; Patent
LANGUAGE: English
AB A connector for drill string elements is formed as a cylindrical body having a bore and threaded sections on opposite ends for connecting **drill** tubing or **pipes** together. A number of bearings are secured at spaced points to the exterior of the cylindrical body. One or more slots are formed in the exterior of the body to allow fluid to pass in a return flow. Also described is a helical stack- out inhibiting system for horizontal drilling operations utilizing a number of tubular members having an **outer diameter** that is slightly less than the **inner diameter** of the hole being drilled. A number of rolling bearing members are secured to and extend outboard of the exterior surface of each tubular member. The rolling bearing members facilitate the axial and rotational movement of the drill string in horizontal drilling operations and also inhibit the **drill pipe** or tubing from contacting the sides of the hole.

L5 ANSWER 15 OF 51 TULSA COPYRIGHT 2000 UTULSA
ACCESSION NUMBER: 96:12286 TULSA
DOCUMENT NUMBER: 625611
TITLE: BOX **OD** (OUTSIDE DIAMETER) STABILITY OF DOUBLE SHOULDER TOOL **JOINTS** AT CATASTROPHIC FAILURE
AUTHOR: THOMAS, M; SMITH, J E
CORPORATE SOURCE: THOMAS TOOLS INC; GRANT PRIDECO INC
SOURCE: IADC/SPE DRILLING CONF (NEW ORLEANS, 3/12-15/96) PROC PP 33-40, 1996 (IADC/SPE-35035; 5 REFS). ; Conference; Conference Article
LANGUAGE: English
AB Drilling or working in small diameter holes necessitates the use of small diameter tool **joints**. Because of their size, these **joints** may be torsionally weak compared to the pipe and may fail catastrophically. Catastrophic failure of tool **joints** caused by too much torque often results in box swelling severe enough to prevent fishing with an overshot. Double shoulder tool **joints** are stronger in torsion than conventional **joints**, and swelling that does occur during catastrophic failure is small and would probably not prevent fishing with an overshot.

DATE: JUNE 29, 2000

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